REMARKS

Applicants respectfully request reconsideration of the prior art rejection set forth by the Examiner under 35 U.S.C. §§ 102 and 103. In particular, Applicants note that the presently claimed invention is directed to new and improved systems and methods for reading out data and recording data to a recording medium. Independent claim 1 defines the invention as including a control means for dynamically controlling and adjusting an amount of light transmitted from a laser diode used in reading the data or a frequency of a signal that is superimposed on a signal applied to the laser diode or an amplitude of the signal that is superimposed on the signal applied to the laser diode based on the calculated error rate.

Applicant respectfully submits that Hayashi reference, U.S. Patent 5,784,356 provides no teaching nor suggestion whatsoever regarding this advance in the art. Advantageously, Applicants claimed invention provides more reliable data reproduction at greater speeds through the use of this dynamic adjustment technology. In contrast, the Hayashi reference provides no teaching nor suggestion whatsoever of these techniques and merely is directed to a reproduction apparatus which employs an error rate detector and a variable gain amplifier is used for adjusting the amplitude of an RF signal that is generated while reading from the disk. When the error rate exceeds a certain level at reproduction speed, Hayashi teaches that the amplitude of the RF signal from the variable gain amplifier is increased to set the error rate to a level at which the data can be properly read. See specifically the Abstract of the Hayashi reference.

In contrast with the subject matter described in Applicants present application, the Hayashi reference describes a system wherein after the reproduction signal has been generated, the gain of an amplifier that amplifies this reproduced signal is adjusted. The Examiner has specifically asserted that Figure 7 and column 4 at lines 61-67 describes the system controller 29 performing control to increase the gain of the variable gain amplifier 30,

and that pick-up 12 superimposes the digital write signal onto a laser beam for transmission. Applicants submit that this is inaccurate. The subject matter in column 4 referenced by the Examiner is merely directed to controlling to increase the gain of the variable gain amplifier 30, and in order to increase the amplitude of the reproduced RF signal. Significantly, however, this reproduced signal is not fed back to the laser beam that is used in reproducing data from the disk. Accordingly, there is no teaching nor suggestion whatsoever regarding either adjusting an amount of light transmitted from a laser diode used in reading the data, nor frequency of a signal that is superimposed on a signal applied to the laser diode or an amplitude of the signal that is superimposed on the signal applied to the laser diode.

Because there is no teaching or suggestion whatsoever regarding this advance in the art, claim 1 and each of it's dependent claims are allowable, at least for this reason alone. Similarly, in regard to claims 19 and 20, there is no teaching nor suggestion whatsoever regarding the dynamic adjustment of the gain of the photodiode as described by Applicants in the present application, or the limitations previously discussed that are found in claim 19. Hayashi merely teaches adjustment of an amplifier that amplifies an RF signal.

Furthermore, in regard to claim 24, there is simply no teaching or suggestion whatsoever regarding the adjustment of the specified filter characteristics. Indeed, as acknowledged by the Examiner, Hayashi does not explicitly teach the use of controlling various other features such as inclination and filter characteristics found in claims 24 and 26. The Examiner asserts that this deficiency is overcome by Noguchi. Significantly, however, a review of the Noguchi reference similarly fails to describe the subject matter these claims, and accordingly, Applicants submit that this rejection is improper and should be withdrawn.

For the foregoing reasons, Applicants submit that all of the rejections should be withdrawn and the claims now allowed in the application.

Respectfully submitted,

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